

Fig. 1

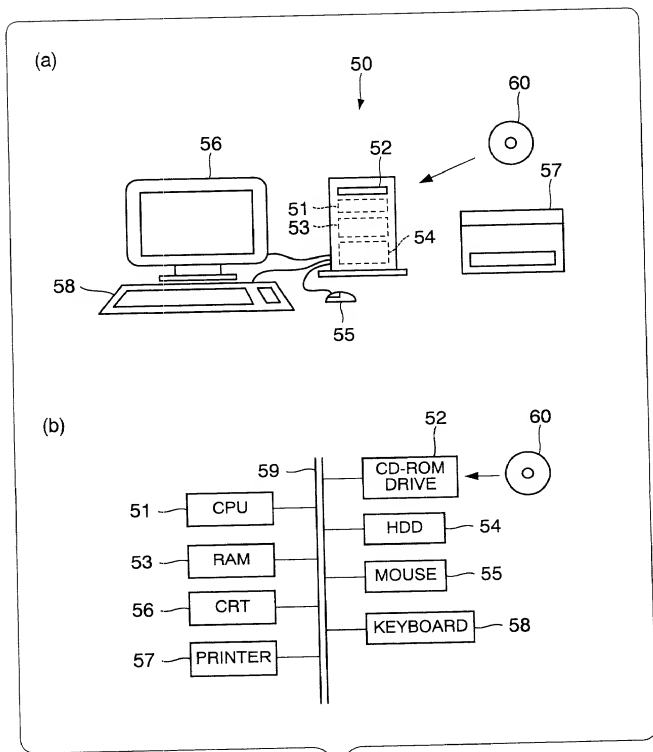


Fig. 2

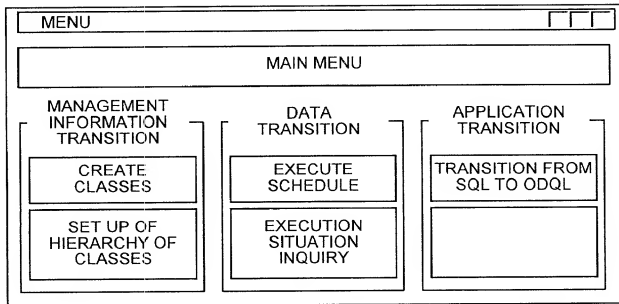


Fig. 3

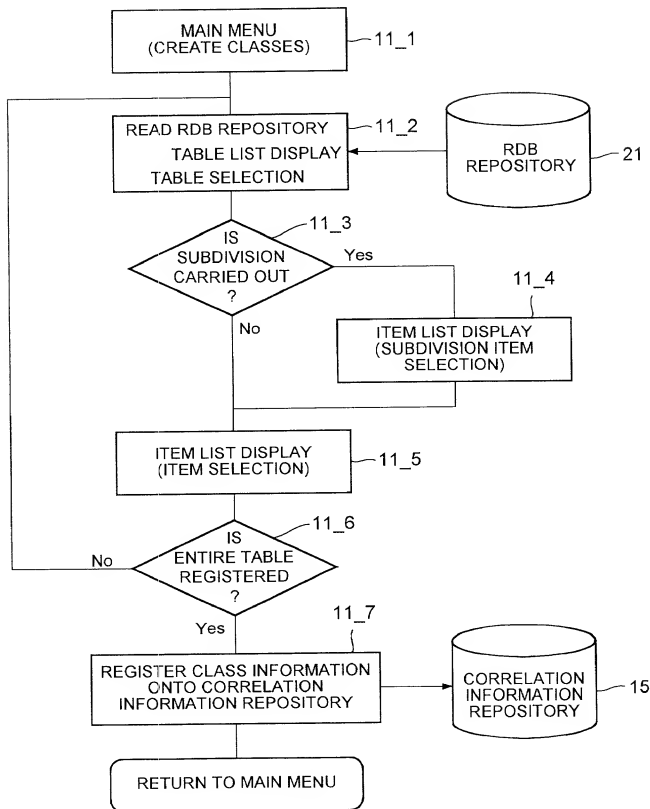


Fig. 4

TABLE LIST																																				
TABLES		ATTRIBUTES																																		
<div> <div>MAKER</div> <div>COUNTRY</div> <div>PREFECTURE</div> <div>BEVERAGE</div> </div>		<table border="1"> <thead> <tr> <th>ITEM NAMES</th> <th>DIGITS</th> <th>TYPES</th> </tr> </thead> <tbody> <tr> <td>1 MAKER CODE</td> <td>3</td> <td>INT</td> </tr> <tr> <td>2 MAKER NAME</td> <td>30</td> <td>CHAR</td> </tr> <tr> <td>3 MAIL NUMBER</td> <td>8</td> <td>CHAR</td> </tr> <tr> <td>4 ADDRESS</td> <td>50</td> <td>CHAR</td> </tr> <tr> <td>5 TEL</td> <td>13</td> <td>CHAR</td> </tr> <tr> <td>6 FAX</td> <td>13</td> <td>CHAR</td> </tr> <tr> <td>7</td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> </tr> </tbody> </table>	ITEM NAMES	DIGITS	TYPES	1 MAKER CODE	3	INT	2 MAKER NAME	30	CHAR	3 MAIL NUMBER	8	CHAR	4 ADDRESS	50	CHAR	5 TEL	13	CHAR	6 FAX	13	CHAR	7			8			9			10			<div> <div></div> <div></div> <div></div> </div>
ITEM NAMES	DIGITS	TYPES																																		
1 MAKER CODE	3	INT																																		
2 MAKER NAME	30	CHAR																																		
3 MAIL NUMBER	8	CHAR																																		
4 ADDRESS	50	CHAR																																		
5 TEL	13	CHAR																																		
6 FAX	13	CHAR																																		
7																																				
8																																				
9																																				
10																																				
<div>MENU</div>		<div>NEXT SCREEN</div>																																		

Fig. 5

106190-22162860

00879137-061901

SET UP OF CLASS

TABLES

	CLASSIFICATION
1	MAKER
2	
3	
4	
5	
6	
7	
8	
9	
10	

ATTRIBUTES OF MAKER

	ITEM NAMES	DIGITS	TYPES
1	MAKER CODE	3	INT
2	MAKER NAME	30	CHAR
3	MAIL NUMBER	8	CHAR
4	ADDRESS	50	CHAR
5	TEL	13	CHAR
6	FAX	13	CHAR
7			
8			
9			
10			

CLASSES CREATED

ATTRIBUTES

	ITEM NAMES	DIGITS	TYPES
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

PREVIOUS SCREEN

COMPLETION

Fig. 6

T02190" E6167860

SUBDIVISION OF TABLES			
<p>TABLES</p> <p>..... MAKER</p> <p>..... COUNTRY</p> <p>..... PREFECTURE</p> <p>..... BEVERAGE</p>		<p>BEVERAGE</p>	
	ITEM NAMES	DIGITS	TYPES
1	NAME	50	CHAR
2	LARGE CLASSIFICATION	20	CHAR
3	MIDDLE CLASSIFICATION	20	CHAR
4	SMALL CLASSIFICATION	20	CHAR
5	AGE BRACKET	20	CHAR
6	PRICE	10	FLOAT
7	MAKER CODE	3	INT
8	DEGREE	3	INT
9	CLASS	3	INT
10	PREFECTURE CODE	2	INT

PREVIOUS
SCREEN

NEXT
SCREEN

Fig. 7

Fig. 8

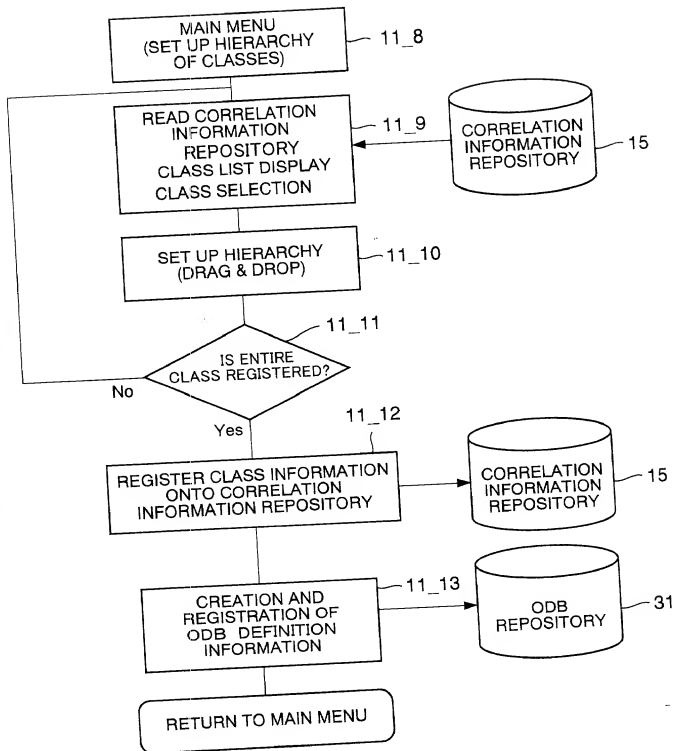


Fig. 9

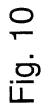


Fig. 10

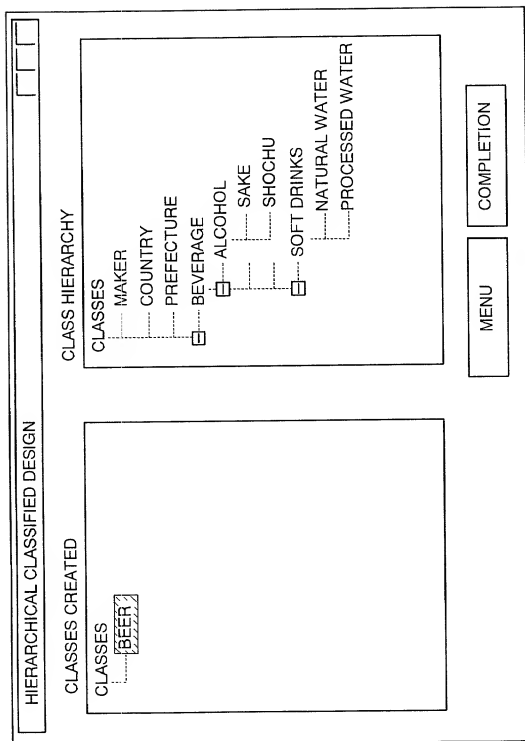


Fig. 11

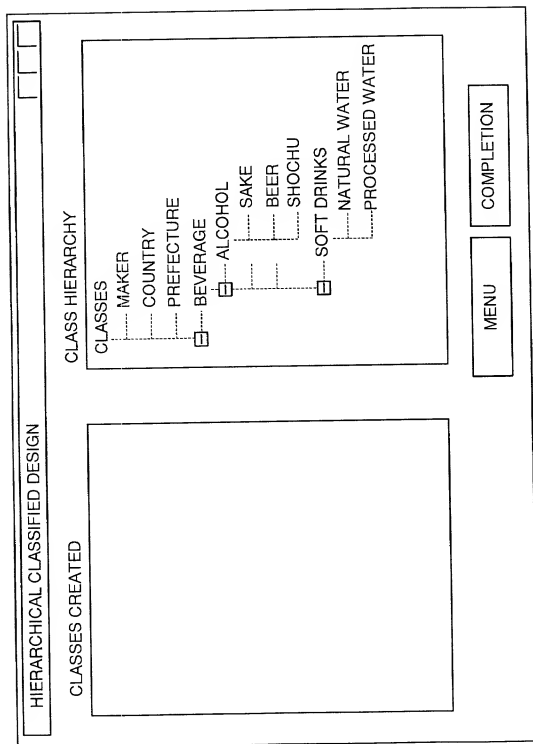


Fig. 12

DATABASE NAMES	CLASS NAMES	TABLE NAMES	ATTRIBUTES NAMES	ITEM NAMES
CLASS	MAKER	MAKER	MAKER CODE	MAKER CODE
CLASS	MAKER	MAKER	MAKER NAME	MAKER NAME
CLASS	MAKER	MAKER	ADDRESS	ADDRESS
CLASS	BEER	BEVERAGE	MALT	MALT
CLASS	BEER	BEVERAGE	COUNTRY CODE	COUNTRY CODE

INDEXES	HIERARCHY	SUBDIVISION CONDITIONS
YES	1	
NO	1	
NO	1	
NO	3-1-2	MIDDLE CLASSIFICATIONS-'BEER'
YES	3-1-2	MIDDLE CLASSIFICATIONS-'BEER'

Fig. 13

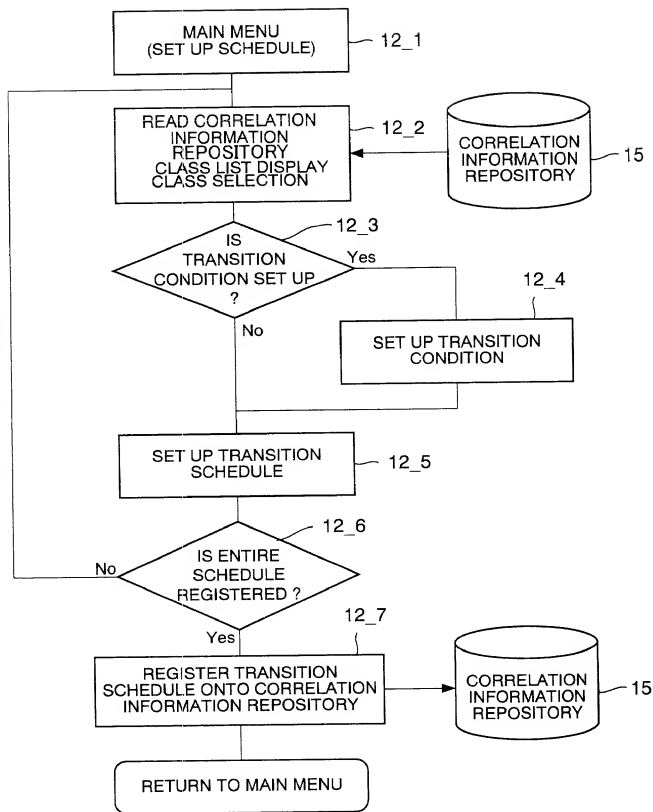


Fig. 14

TRANSITION SCHEDULE SET UP		[] [] []	
CLASS AS TRANSITION OBJECT			
[] BEER			
TRANSITION REQUEST PREARRANGED DATA		TRANSITION REQUEST PREARRANGED TIME	
1998	YEAR	12	MONTH
		25	DATE
		21	TIME
		00	MINUTE
— RECIPE FOR ERRORS DURING EXECUTION OF SCHEDULE —			
<div><input checked="" type="radio"/> TERMINATE IT, AND EXECUTE SUBSEQUENT SCHEDULES; <input type="radio"/> TERMINATE IT, AND SLAND BY SUBSEQUENT SCHEDULES <input type="radio"/> CONTINUE FORCIBLY</div>			
PREVIOUS SCREEN		COMPLETION	

Fig. 15

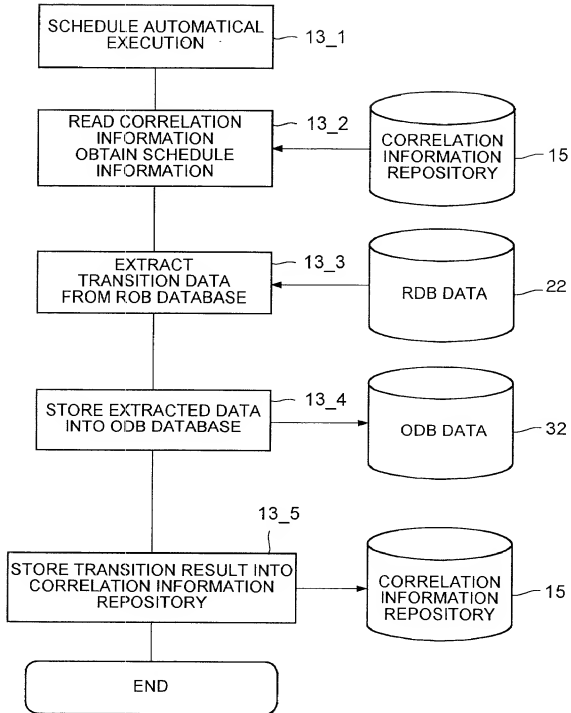


Fig. 16

09879133-061301

SCHEDULE EXECUTION SITUATION INQUIRY					
	CLASS NAME	EXECUTION DATES	EXECUTION TIMES	STATES	RESULT INFORMATION
1	COUNTRY	1998/12/25	18:00	COMPLETION	NORMAL END
2	PREFECTURE	1998/12/25	18:30	COMPLETION	ERROR
3	BEVERAGE	1998/12/25	19:00	IN EXECUTION	
4	ALCOHOL	1998/12/25	19:30	NOT YET EXECUTION	
5	SOFT DRINKS	1998/12/25	20:00	NOT YET EXECUTION	
6	SAKE	1998/12/25	20:30	NOT YET EXECUTION	
7	BEER	1998/12/25	21:00	NOT YET EXECUTION	
8	NATURAL WATER	1998/12/25	21:30	NOT YET EXECUTION	
9	PROCESSED WATER	1998/12/25	22:00	NOT YET EXECUTION	
10	SHOCHU	1998/12/25	22:30	NOT YET EXECUTION	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

MENU

Fig. 17

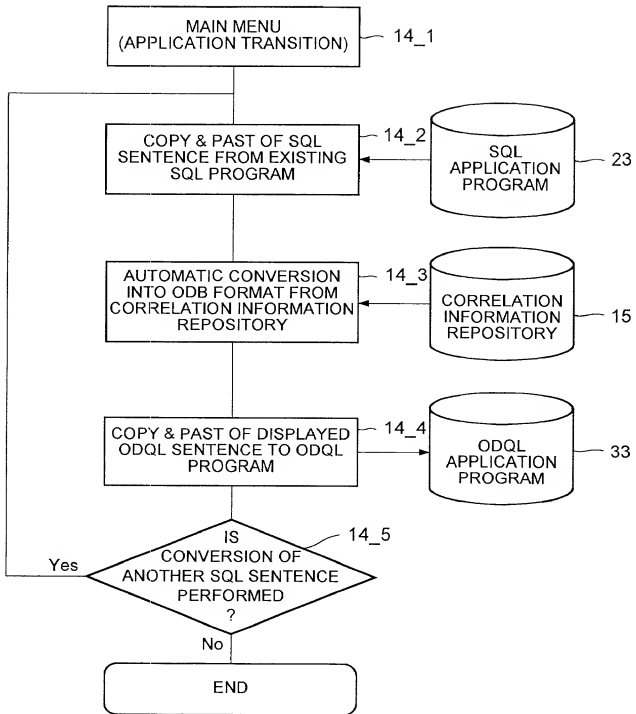


Fig. 18

00079137 004301
10390 2316280

TRANSITION FROM SQL TO ODQL

SQL SENTENCE

MENU

CONVERSION

Fig. 19

TRANSITION FROM SQL TO ODQL

SQL SENTENCE

```
SELECT MAKER NAME, TEL  
FROM MAKER  
WHERE MAKER CODE=130
```

MENU CONVERSION

Fig. 20

TRANSITION FROM SQL TO ODQL

ODQL SENTENCE

```
[ MAKER, MAKER NAME, MAKER, TEL ]  
FROM MAKER  
WHERE MAKER, MAKER CODE=130
```

MENU CONVERSION

Fig. 21

(a)

MAKER CODES	MAKER NAMES	HEAD OFFICES	FOUNDING YEARS	ANNUAL SALES
001	KARYN	TOKYO-TO	1980	1200 HUNDRED MILLION
002	YONTOR Y	OSAKA- FU	1915	880 HUNDRED MILLION
003	YUHI	TOKYO-TO	1986	1100 HUNDRED MILLION
004	HAKODATE	TOKYO-TO	1967	880 HUNDRED MILLION
005	COCA-COLA	AICHI- KEN	1980	2300 HUNDRED MILLION

(b)

BEVERAGE NAME	LARGE CLASSIFICATIONS	MIDDLE CLASSIFICATIONS	SMALL CLASSIFICATIONS	AGE BRACKETS	PRICES	MAKER CODE
KARYN TANREI	ALCOHOL	BEER	BOTTLE	30'S	300	001
KOKEN NO IWASHIMIZU	SOFT DRINKS	NATURAL WATER	CAN	10'S	120	012
MIZUMIZUSHI MIZU	SOFT DRINKS	PROCESSED WATER	PET BOTTLE	20'S	150	004
RAKER	ALCOHOL	BEER	CAN	20'S	220	001
ETSU NO KANBAI	ALCOHOL	SAKE	BOTTLE	40'S	1300	002

DEGREES	CLASSES	PREFECTURE CODE	MOLTS	COUNTRY CODE
20			15%	002
		003		
		007		003
10			20%	
35	1	010		

Fig. 22

CLASSES

MAKER

MAKER CODE
MAKER NAME
HEAD OFFICE
FOUNDING YEAR
ANNUAL SALES

001
KARYN
TOKYO-TO...
1930
1200
HUNDRED
MILLION

002
YONTORY
OSAKA-FU...
1915
860
HUNDRED
MILLION

BEVERAGES

NAME
AGE BRACKET
PRICE
MAKER CODE
SMALL CLASSESFIATION

KARYN TANREI

30'S
300
001
BOTTLE

20

15%
002

ETSU NO
KANBAI

40'S
1300
002
BOTTLE

20

1
010

ALCOHOL

DEGREE

BEER

MOLT
COUNTRY
CODE

SAKE

CLASS

PREFECTURE CODE

SOFT DORINKS

PREFECTURE CODE

NATURAL WATER

Fig. 23

00879137 061301
102190 52162860